

Lower Passaic River Study Area Low Resolution Coring Report Revision
Response to EPA Comments



No.	Section/Title	Comment	Response
1	Figures	Include Figure 1-1: Lower Passaic River Study Area.	<i>The figure has been retained, with no edits.</i>
2	Figures	Include Figure 1-2: Proposed and Actual Sediment Sample Locations; ADD location of the Tierra removal project.	<i>The figure has been retained, with requested edit.</i>
3	Figures	ADD Figure 1-3: Large (oversized) figure showing Actual Sediment Sample Locations and the other features included in Figure 1-2, all on one page.	<i>The requested figure has been added to the final document as Figure 1-3.</i>
4	Figures	ADD to Figures 1-2 and 1-3: Contoured grain size ranges indicated by color, to define geographic and geomorphic areas of the study area.	<i>Based on discussions with EPA on 2/25/11, it was decided that grain size data will not be added to the maps at this point. This comment therefore, requires no edits to the report.</i>
5	Figures	Include Figure 2-1: Water Level Monitoring Stations in the Lower Passaic River.	<i>The figure has been retained, with no edits.</i>
6	Figures	ADD: Overview figure, showing each of the corings with depth, much like Figure 4-1 of the 2010 Newark Bay DEAR report.	<i>The requested figure has been added to the final document as Figure 2-2.</i>
7	Figures	Include Figure 3-1 Series: Surficial Concentration vs. River Mile.	<i>The figure has been retained, , with the COPCs requested by EPA, now Figure 3-2a to 3-2x.</i>
8	Figures	ADD: Scatter Plots of Surficial Concentration vs. TOC (one for each contaminant group evaluated).	<i>The requested set of figures has been added to the final document in section 3 as Figure 3-5a to 3-5m.</i>
9	Figures	ADD: Box and Whisker Charts, much like the Figure 5-8 series in the Newark Bay report, for each 2 mile segment of river. However, unlike in the Newark Bay report, consider using the traditional box plot approach, or an alternative method with EPA concurrence. For all other figures that include color-coding to indicate concentration ranges, the coding should be tied to the box plot parameters, or a subset thereof.	<i>The requested set of figures has been added to the final document as Figure 3-1 to 3-1n.</i>

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10	Figures	Include Figure 3-2 Series: 2008 LRC Surficial Analyte Concentration. However, please revise the color-coding cutoffs; instead of using quintiles, use the percentile rank of each data point in the dataset to group the data, as follows – <25th, 25th to 50th, 50th to 75th, 75th to 90th, and >90 th). For this purpose, please use the full detection limit for non-detects.	<i>The set of figures has been retained with the requested edits (now Figure 3-3a to 3-3n).</i>
11	Figures	ADD: Depth Concentration vs. Depth Profile series of figures, much like the Figure 5-7 series of the Newark Bay report. The bars should generally move in order up the river, with bars representing cores from a transect along the river grouped in some way (i.e., perhaps place a box around their numbers on the axis) and results from tributaries also included in a logical manner. Include appropriate color-coding, as per Comment 9 above. All of this should be explained as notes on the figure. We would prefer that these figures be produced in an 11 x 17 format, so that the entire 17 miles of river can be viewed together, for each contaminant.	<i>The requested figure has been added to the final document as Figure 3-4a to 3-4n.</i>
12	Figures	Include Figure 3-3 Series: Depth Profiles with Cesium-137 and Fines. Include, but please remove the categorization (A through D) and the highlighting. Also, please note on the figure that the lines do not represent an interpolation of the data, but rather just connect the points.	<i>The set of figures has been retained with the requested edits as Figure 3-6a to 3-6n.</i>
13	Figures	ADD: Figures showing comparison of high and low resolution coring results. For example, plot the depth interval versus concentration at each of the co-located cores.	<i>The requested figure has been added to the final document as Figure 3-8a to 3-8m.</i>
14	Figures	Retain all figures from Chapter 4 of the report.	<i>The figures have been retained, with no edits.</i>

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15	Figures	<p>Do not include any figures from Chapter 5. If there are any you feel should be included, in order to properly present the data without interpretation, we are willing to discuss. Insofar as this report does not and cannot benefit from the full integration of data that has been or will be collected as part of this investigation, the report should limit interpretations to data summaries and should not attempt to include more detailed and rigorous interpretations that would normally be included in the RI/FS report. Furthermore, any interpretations with ramifications to human and/or ecological risk or remedial action alternatives would be premature and therefore should not be included in this report. Any interpretations should be limited to an assessment of the representativeness and completeness of the data, to whether or not the data collected have met the objectives of the work plan and, most importantly, to whether or not any significant data gaps remain that will need to be filled for subsequent RI/FS purposes.</p>	<p><i>The set of figures have been removed as requested.</i></p>

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Contaminant Groups to Include		<p>2,3,7,8-TCDD</p> <p>Total TEQ – <i>WHO 2005 TEFs</i></p> <p>PCDD TEQ, PCDF TEQ, and PCDD-PCB TEQ (to be represented in tables only, not figures)</p> <p>Total PCBs</p> <p>Total PCB Congeners and Total PCB Aroclors (to be represented in tables only, not figures)</p> <p>LMW PAHs</p> <p>HMW PAHs</p> <p>Total PAHs (to be represented in tables only, not figures)</p> <p>Total DDx</p> <p>Dieldrin</p> <p>Chlordane</p> <p>Mercury</p> <p>Copper</p> <p>Lead</p> <p>Cadmium</p>	<p><i>The groups as listed have been included in the final report.</i></p>
		<p>In addition, please conduct, and summarize in the report, a review of the data with a focus on those contaminants with a Frequency of Detection (FOD) of greater than 50%. Also include an analysis of outliers. These analyses should be used to determine if any additional contaminants should become part of the above list, and should also become part of the data gap analysis.</p>	<p><i>A statistical evaluation of extreme values has been completed, including evaluation of data distribution and application of parametric or non-parametric extreme value analysis. A summary of the methodology and the results was added to Section 3, as Section 3.1.9, and an Appendix (R) was added with the supporting evaluations. A summary discussion of analytes has been included for those with a detection frequency >50% within Section 3.1.9.</i></p>

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Additional Comments			
1		All dioxin data presented in the report should be corrected, as outlined in the March 16, 2010 report from CSC Environmental Solutions. The uncorrected data should not be presented in any way in the report.	<i>Dioxin data has been adjusted as directed by EPA.</i>
2		Please remove Chapter 5 from the report, in its entirety.	<i>Chapter 5 has been removed as requested.</i>
3		Please remove all language related to sedimentation rates in the river, except, potentially, language regarding whether any additional data needs to be collected in order to enhance our understanding of sedimentation rates.	<i>The requested text change has been implemented into the final document.</i>
4		<p>Specific Comments on Chapter 1</p> <ul style="list-style-type: none"> a. Page 1-1, 2nd Paragraph, 2nd Sentence – The AOC did not require the Settling Parties to fund the study, it required the Settling Parties to complete the study. b. Page 1-3, 3rd Full Paragraph, Last 2 Sentences – Please re-write to state: “Sampling showed that the sediments throughout the 6-mile stretch and beyond were contaminated with organic and inorganic substances, and were being dispersed by the tidal nature of the LPR. Therefore, in 2001 USEPA expanded the scope....” 	<ul style="list-style-type: none"> a. <i>The requested text change has been implemented into the final document.</i> b. <i>The sentence has been rewritten to state: “Sampling showed that the sediments throughout the 6-mile stretch and beyond were contaminated with organic and inorganic substances, and were being potentially dispersed by the tidal nature of the LPR. Therefore, in 2001 USEPA expanded the scope....” There were no calibrated models to verify that sediments were dispersed beyond the study area.</i>

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5		<p>a. Remove all interpretive language from Section 3.1.5, Radiochemistry Analysis. This includes calculations of sedimentation (or erosion) rates from the text.</p> <p>b. Remove Figures 3-4 and 3-5.</p> <p>c. Pages 3-4 to 3-5, Section 3.2 – the stated goal of analyzing the Group B parameters was to determine the relevance of these analytes for future phases of the investigation. When will this determination be made?</p> <p>d. Page 3-5, Section 3.3 – the stated goal of analyzing the Group C analytes was to complete a PCB Partitioning Study. Page 3-5 of the report states that the results of the partitioning study will be submitted under separate cover, but this has not yet been received. Please provide an update.</p> <p>e. The pathogen results, and associated text, should be removed from the report. Pathogens are not relevant to the CERCLA decision-making process.</p>	<p>a. Language has been removed as requested.</p> <p>b. Figures 3-4 and 3-5 have been removed as requested.</p> <p>c. The text has been edited to include this determination</p> <p>d. A status update of the PCB Partitioning Study will be submitted as a separate document, but along with the revised report.</p> <p>e. Language has been removed as requested.</p>

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6		For data <u>presentation</u> purposes only, the simple substitution method of using the detection limit to represent non-detect concentrations should be used. In the future, for data <u>evaluation</u> purposes, statistical methods should be used to handle non-detects.	<i>Response: Comment noted, no specific change requested for the final document.</i>
7		Please handle field duplicates as follows: when both results show detections, average the results; when one result is non-detect, use the detected concentration; and when both results are non-detect, average the detection limits.	<i>Figures have been updated to reflect this requested presentation of field duplicates. All data is presented in table format in Appendix D and has not been averaged or removed.</i>
8		While the report indicates that additional data will be necessary, it does not provide a sufficient, sediment-specific, data gap analysis. Please prepare such an analysis, or submit a separate work plan for doing so, within 45 days.	<i>A data gaps analysis will be included as part of the QAPP currently under development for the LPR Supplemental Sampling Program. It is expected that the QAPP will be submitted to EPA in late summer 2011.</i>